Special Report
Information Technology Department
Performance Measures

March 2001

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City Auditor's Office

City of Kansas City, Missouri

12-2001

March 21, 2001

Honorable Mayor and Members of the City Council:

We conducted this special report to recommend a set of performance measures for the Information Technology Department to regularly report to the city manager, mayor and City Council, and public. This is our third in a series of reports to recommend performance measures for a city department or function. Performance measurement encourages accountability by providing information regarding the use of public resources. Different types of measures describe activities, the resources devoted to those activities, and their results.

The city plans to invest $44 million over the next few years in new technology systems. Closely monitoring IT performance is one way to reduce the risk that expensive technology projects will fail. We identified 17 measures that focus on reducing risk, ensuring cost-effectiveness, and meeting user service expectations. We recommend the director of Information Technology adopt the set of measures and develop an implementation plan including a timetable for implementation, definition of terms, and methods for regularly collecting, analyzing, reporting, and auditing data. The department's work through the KC-GO initiative has helped lay the groundwork for implementing these measures.

We provided a draft report to the director of Information Technology for review and comment on February 16, 2001. Her written response is appended. We appreciate the courtesy and cooperation of the Information Technology Department staff and city staff who participated in focus groups. The team for this project was Suzanne Polys and Amanda Noble.

Mark Funkhouser
City Auditor

Special Report: Information Technology Performance Measures

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Introduction

Objectives

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We conducted this special report pursuant to Article II, Section 13 of the Charter of Kansas City, Missouri, which establishes the Office of the City Auditor and outlines the city auditor's primary duties.

We undertook this project to recommend a group of measures for the Information Technology Department (ITD) managers to report regularly to the City Council, city management, and city technology users. Taken together, the measures should provide a representative view of the level of resources used, activities performed, and outcomes or results of these activities, allowing comparison of results to goals or targets.

We do not recommend performance goals and targets. Rather, the managers of ITD should establish goals. It may be appropriate for the department to collect baseline data before identifying specific goals.

The report is designed to address the following objective:

- What set of performance measures will provide a representative overview of ITD and be of interest to elected officials, city management, and city IT users?

Scope and Methodology

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We recommend performance measures for the Information Technology Department (ITD). This report is not intended to evaluate ITD's performance.

We conducted this project in accordance with applicable government auditing standards. Our research methods included:

- Reviewing literature regarding performance measures in general and in information technology departments.

- Interviewing ITD management and city management to identify potential performance measures.

- Conducting four focus groups with department executives, members of the Information Technology Advisory Board (ITAB) and Information Policy Oversight Group (IPOG), and general city users to identify types of information stakeholders would use to evaluate ITD.

Appendix A presents a summary of focus group methodology and results. We summarized our results and recommendations for the director of Information Technology to solicit her ideas on the types of performance measures that would be most useful.

No information was omitted from this report because it was deemed privileged or confidential.

Background

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In an effort to improve city performance measurement, the City Auditor's Office has planned this as the third in a series of special reports recommending specific performance measures for selected departments. Good performance measurement enhances accountability and allows program managers, the city, and the public to assess the efficiency and effectiveness of city programs. We released the first in the series of reports recommending a specific set of performance measures, *Kansas City, Missouri Police Department: Performance Measures for Patrol and Investigations*, in April 1999. Our second report, *Parks and Recreation Department, Recreation Program Performance Measures*, was released in March 2000.

We selected the Information Technology Department because of its large expenditures, planned future city investments, and an interest in looking at city support services. Additionally, because technology affects the performance of almost every other department we thought it would be appropriate to develop performance measures for ITD.

Legislative Authority

ITD is responsible for all technology and technology purchases. Under the city code, the director of Information Technology is responsible for the electronic and computer operations within (but not limited to) city hall including coordination of local-area networks (LANs) and wide-area networks (WANs), computer operations, system software and maintenance, telephones, and radios. ITD does not manage the radio system, or the procurement of non-public safety related radios and radio related parts. According to the city's administrative regulations, the director of Information Technology is responsible for reviewing and

authorizing all data processing services and equipment of the city government whether they are provided by the city ITD or private firms. ITD is also responsible for maintaining the city web and e-mail servers and assigning publishing access to department representatives, and reviewing apparent violations of the city's Internet policy.

Department organization. ITD provides centralized services to city staff. The department was established in September 1995 and is managed by the director of Information Technology. Prior to 1995, Information Systems had been a division of the Finance Department. ITD consists of telecommunications, help desk, administration, applications/operations/system software, business systems consulting, network, notes/web initiatives, and the newly established project management office. ITD has contracted with a consultant to train, test, and certify staff on project management. In addition to centralized ITD services, several other city departments such as Water Services and Aviation have technical support personnel on their staff that troubleshoot technology issues and act as liaison between their department and ITD.

Information Technology Department Mission Statement

To provide innovative, cost effective technology solutions to our associates, customers, and citizens through industry best practices, teamwork, leadership and business system process improvements.

Source: *Service Efforts and Accomplishments,* Office of Management and Budget, Kansas City, Missouri, September 2000, p. 33.

Major Initiatives

ITD is coordinating a number of technology initiatives.

Enterprise Resource Planning (ERP). The city is planning to purchase an ERP system – software with modules for finance, human resources, payroll, work requests, fleet management, and asset management. All modules are integrated to eliminate overlap, improving efficiency and reducing costs. ERP is intended to allow information to be more easily shared among departments. The software requires less customization than previous computer systems, making it easier to upgrade and maintain.

Computer-Aided Dispatch (CAD). The CAD project is intended to combine the city's multiple separate CAD systems. This electronic linking of dispatch functions is designed to improve response and reduce

cost overall. A consulting firm is helping the city to assess needs, objectives, and costs for the CAD program.

Geographic Information System (GIS). GIS is intended to standardize city mapping software and provide access to platting and infrastructure databases. It has the potential to interface with the work request module on ERP, allowing Public Works field workers to scan in work sites to initiate repairs. GIS could also potentially integrate with the asset management module to track location of city assets. An IT consulting group is working with GIS to determine how to improve the system.

Document Imaging. Document Imaging is intended to move paper to electronic recordkeeping. The City Clerk, Municipal Court, and Records Management Division could benefit from easier record retrieval. It could also allow an interface with current software so that city offices can image permits and similar documents. Currently ITD is in the process of identifying funding through the budget process.

Telecom Phase II. The goal of Telecom Phase II is to merge voice and data networks to enable video conferencing between various city sites. Currently, the city's data and voice networks run on separate fiber cables.

PC Lifecycle. PC Lifecycle provides the city with a computer life cycle management system. ITD entered into a lease agreement with a vendor to purchase the city's current inventory of personal computers and lease them back to the city while replacing them on a rotating basis. The program is intended to replace every PC on a three-year rotation ensuring funding for up-to-date equipment. The company the city initially contracted with went bankrupt. The city recently entered into a new contract with another vendor.

E-Government. E-Government allows for selling city services over the Internet. With the implementation of e-government, citizens would be able to obtain permits and licenses online as well as access online information such as ordinances, live committee meetings, and council meetings. Currently the city's website provides access to the city charter, ordinances, and departmental information.

Program/Project Management (PPM). PPM is intended to track capital improvement projects and is closely related to ERP.

Kansas City Government Optimization (KC-GO). ITD is participating in KC-GO, a citywide initiative to provide better services using competitive business practices. Through this process, ITD is

working with a consultant to develop a three-year strategic plan based on comparison of costs to those of other cities and an analysis of service needs.

Funding and Staffing

ITD is budgeted about $11.1 million in fiscal year 2001, about a 50 percent increase since 1997. The department is authorized 76 full-time employees plus 4 employees charged to other departments. (See Exhibit 1.)

Exhibit 1. ITD Expenditures and Full-time Equivalents, Fiscal Years 1997-2001

	1997	1998	1999	2000	2001
Expenditures (million)	$7.5	$8.2	$8.3	$9.5	$11.1
Full-time Equivalents	80	71	74	79	80

Sources: Adopted budgets 1997-2001.

Performance Reporting

ITD provides performance information in the annual budget on four basic output measures. ITD management told us that these measures provide little insight about their actual performance. ITD participated in the Office of Management and Budget's first *Service Efforts and Accomplishments* report, released in September 2000 to assist council members during the budget process.

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Recommendations

Summary

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Performance measurement encourages accountability by providing information regarding the use of public resources. Different types of measures describe activities, the resources devoted to those activities, and their results. Performance measures are most effective when they are useful, relevant, verifiable, and economical. A group of related measures provides a more representative overview of the service being measured than any single measure. Performance measures help clarify an organization's priorities and expectations; what is measured and reported will influence what and how things get done.

Governments spend billions of dollars on information technology each year. Monitoring performance is essential to ensuring the intended benefits of this investment are achieved. Measuring IT performance is challenging. It may be difficult to isolate IT effects, cost information is often lacking, and rapid changes in technology make it difficult to accurately track measures.

The Governmental Accounting Standards Board describes five types of performance measures: input, output, outcome, efficiency, and explanatory variables. We recommend a set of measures, grouped by these categories. We do not recommend specific explanatory measures in this report. The director of Information Technology should adopt the measures and develop a timetable for implementing a system to regularly collect, analyze, report, and audit the data.

Characteristics of Effective Performance Measures

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Effective performance measures provide useful, reliable information regarding public services. They assist public officials to fulfill their obligation to use tax dollars well, provide quality services at a reasonable cost, and account to the public for results. Effective performance measures are related to a program's mission, of interest to a wide audience, and economical to calculate.

Effective measures are useful. Performance measures are effective if management and the public can use them for oversight and decision-making. Measures should provide a means for assessing whether

programs are accomplishing the expected results. Useful measures have a known purpose, provide information of value to identified users, and focus primarily on results (outputs and outcomes).

Effective measures are relevant. Performance measures are effective when they are clearly related to the organization's mission, goals, objectives, and strategies. Relevant measures are of interest to stakeholders and measure things that the Information Technology Department can reasonably be expected to influence.

Effective measures are reliable and verifiable. Reliable and verifiable measures are obtained through consistent methods for collecting, analyzing, and reporting data. Consistent methods are based on: 1) clear and complete measurement procedures; 2) clear definitions of terms; 3) available documents to describe measurement procedures and results; and 4) periodic auditing and updating to maintain the measurement system's usefulness.

Effective measures are economical. Effective measures are generated and used as cost-effectively as possible. They use existing or readily obtainable data where possible. Measures are less effective if staff perceive that data collection and reporting increase their workload needlessly.

Measuring performance mitigates risk. IT performance measures in use in government attempt to determine costs, the degree of mission fulfillment, and ability of IT departments to meet customer needs. The high cost and risks inherent in implementing technology systems makes IT an important topic for government and industry. State and local governments spent over $50 billion on information technology in 2000.[1] At the federal level, the Clinger-Cohen act requires federal agencies to justify technology costs, and monitor return on investment. Kansas City plans to invest $44 million over the next few years in new technology systems. Closely monitoring IT performance is one way to reduce the risk that expensive technology projects will fail.

While measuring IT performance is beneficial, it is also challenging. It is difficult to isolate IT effects and measure its conflicting increase and decrease of productivity. Both IT expenditures and activities are often decentralized making them difficult to measure accurately. Cost information is often lacking. And finally, it is a challenge to keep IT performance data current with the rapid change of technology.

[1] Steve Towns, "The Bottom Line," *Government Technology*, August 2000, pp. 42-62.

Recommended Measures

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We recommend a set of 17 measures intended to provide a balanced overview of the Information Technology Department's services. The measures we recommend are presented based on the Governmental Accounting Standards Board categories of performance measures.

Input Measures

Input measures show the level of resources used to provide a service, such as funds, time, personnel, and equipment. We recommend ITD adopt the following input measures:

- Number of staff by program or service
- ITD's budget as a percent of citywide technology spending
- Number of workstations

Staffing measures resource allocation. The number of staff by program or service area provides information on how the department's resources are allocated. The Office of Management and Budget expressed interest in resource allocation for their *Service Efforts and Accomplishments* report that provides the council with information during the budgeting process.

Citywide spending should be tracked. ITD's consultant, META Group, indicated that more city dollars are spent on technology than comes directly from ITD. Identifying all technology spending will assist in tracking what the city gets for its technology dollar. It could illuminate overlap in spending and ultimately result in significant savings. The International City/County Management Association (ICMA) reports this measure for several cities and counties, providing comparison data for benchmarking.[2]

The number of workstations indicates demand for ITD services. We asked IT users about the IT services they use and how they interact with ITD. Most indicated that they interacted through the city's IT infrastructure including Lotus Notes and the Internet connection. The number of workstations provides a measure of demand for services. This measure is used in other cities, such as Seattle, and ICMA suggests a similar sample input measure.

[2] ICMA, a professional and educational organization of appointed local managers and administrators, maintains the ICMA Center for Performance Management. It assists approximately 120 city and county governments to share data on programs, benchmark their performance to comparable jurisdictions, and improve services.

Output Measures

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Output measures show the level of activity or quantity of services delivered. Focus group participants told us that these service areas are important. We recommend ITD adopt the following output measures:

- Number of service requests by type (help desk, change control, project management)
- Percent of uptime (mainframe, network, phone system)
- Number of systems maintained (mainframe, network, phone system)
- Number of training class participants
- Number of IT related purchase requests

These measures indicate the volume of ITD's work and variety of services that the department offers. These measures also can be used to establish staffing requirements.

Help desk responds to user concerns. The number of service requests is a measure of ITD's workload. All four focus groups identified the help desk as a useful service. The help desk fields a variety of requests including quick answers and program fixes, project requests, and system changes. ITD has software to track help desk calls and plans to add additional modules to separately track project management and change control requests. Fairfax County, Virginia, and Seattle measure the number of help desk requests. ICMA lists it as a sample measure.

System availability is a basic IT service. ITD management, ITD users, and other jurisdictions indicate that measure of system availability is important. ITD managers told us that availability of the network, mainframe, and phone systems suggests a basic level of service. All four focus groups also talked about availability of systems as a service expectation. Other agencies such as Fairfax County, Virginia, and Seattle report system availability and the National Institutes of Health suggests it as a measure.

The number of systems maintained also indicates the volume of ITD activities. A fewer number of systems maintained may also indicate a higher level of integration. As the city moves toward more integrated systems, this number should decrease.

Training meets users needs. Technical and general user focus groups identified training as a service expectation. Seattle also measures the number of training classes provided.

IT approves technology purchases. Tracking the number of technology purchase requests processed is relevant to ITD's mandate to approve all technology purchases in the city. Reporting the volume of requests will provide context for our suggested efficiency measure of turnaround time.

Outcome Measures

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Outcome measures report program results and are often expressed as the degree to which specific objectives have been met. Outcomes are sometimes referred to as quality of service measures. The outcome measures we recommend emphasize services that focus groups and city managers identified as important. We recommend ITD adopt the following outcome measures:

- Percent of workstations with Internet or network capability
- Percent of help desk requests resolved in "x" time
- Percent of help desk requests resolved the first time
- User satisfaction with responsiveness, communication, and ability to meet department needs – measured by survey responses
- Return on investment
- Percent of project management milestones met
- For major initiatives, project time and cost variance

Network capability reflects integration. Integration of systems and ability to share information are important ITD objectives. Past budget performance measures indicated the number of city users with Lotus Notes and Internet capabilities. The city's ERP initiative illustrates the movement toward system integration. ITD management hopes to reduce technology costs and improve city return on investments by continuing this trend to integrate systems. Performance measures used by the Commonwealth of Virginia also support the measurement of system integration and sharing.

Responsiveness indicates quality of service. All of the focus groups emphasized the importance of ITD's responsiveness. The percent of help desk calls resolved within a certain time is a measure of department responsiveness. ITD should set the goal according to baseline measures. Seattle and ICMA use help desk calls resolved within time "x" as a performance measure. The National Institutes of Health suggests it as a sample performance measure.

ITD expertise needed to meet user needs. ITD expertise was a service concern expressed in two focus groups. ITD's ability to resolve problems completely on the first try indicates a level of expertise in its

staff. Several jurisdictions including Seattle, Montgomery County, Maryland, and Fairfax County, Virginia, report similar measures.

Responsiveness, communication, and addressing departmental needs are important for user satisfaction. Focus group participants rated responsiveness, communication, and ability to meet departmental needs as their most important service expectations. Responsiveness refers to the speed with which ITD responds to and resolves problems as well as communicating and amount of time required to resolve a problem. Communication refers to ITD providing timely information about system problems and including users in decision making. Currently, ITD surveys users on seven different areas of their services including: project management, application support, network services, staff, computing systems, help desk, and value.

User satisfaction with ITD meeting departmental needs raises the issue of tension between ITD's support and control role. ITD management expressed their concern of looking out for the city's interests while knowing that each department would like to maintain control of their own technology resources. Focus group participants expressed some concerns about ITD's role. Participants told us that ITD should be flexible or adaptable for individual department needs. Analysis of user satisfaction needs to consider this tension inherent in its dual role.

User satisfaction is a common outcome measure used in a number of other agencies including, Fairfax County, Virginia; the Commonwealth of Virginia; Florida; Seattle; and ICMA.

Return on investment model tracks costs and benefits. ITD management emphasized the importance of the high-level performance measure - return on investment. Because of so many failed government IT initiatives, emphasis in the industry has been placed on tracking technology costs and determining benefits. ITD management is developing a return on investment model. The National Institutes of Health suggests a measure related to return on investment in their sample IT performance measures.

Tracking project milestones helps reduce risk. ITD is currently establishing a project management office to track development of technology projects. The city is planning to invest millions of dollars in new technology over the next few years. Monitoring the time and cost of these initiatives can help reduce the risk that these projects will be late and over-budget. Other agencies, including Seattle, Arizona, and the National Institutes of Health use similar measures.

Efficiency Measures

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Efficiency measures show a program's cost effectiveness and are expressed as ratios of outputs to inputs or outcomes to inputs. We recommend ITD adopt the following efficiency measures.

- Turnaround time for purchases
- Cost per workstation

Turnaround time for technology purchases is a user concern. Focus group participants expressed frustration with the city's purchasing process for technology. Under city administrative regulations, ITD is responsible for approving all technology purchases. Tracking turnaround time for technology purchases will provide a way to evaluate and address user concerns.

Cost per workstation measures competitiveness. ITD is developing cost information as part of the KC-GO initiative. Measuring cost per workstation, including hardware, software, labor, and overhead will encourage competitiveness. ICMA measures total IT operating and maintenance expenditures per workstation. ITD will be able to compare its costs to other jurisdictions.

Recommendations for Implementation

1. The director of Information Technology should adopt the recommended performance measures. The adopted measures should be regularly reported to the city manager, the City Council, and the public.

2. The director of Information Technology should develop an implementation plan including a timetable for implementation, definition of terms, and methods for regularly collecting, analyzing, reporting, and auditing data.

3. Once the performance measures have been implemented, the director of Information Technology should collect baseline data and establish targets or goals for the measures.

Appendix A

Focus Group Methodology

Focus Group Methodology

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We conducted four focus groups to help identify performance measures that are of interest to city technology users. The meetings were held in December 2000 and were about an hour to 90 minutes long. We conducted one group of department executives – deputy directors or division heads; one technical group – Information Technology Advisory Board (ITAB) and Information Policy Oversight Group (IPOG) members; and two groups of general IT users. In all, 31 city staff participated in these focus groups.

We judgmentally selected participants for the management and technical groups to recruit with a goal of selecting a mix of members with varying levels of interactions with ITD. We identified departments with relatively high interactions with ITD as those with numerous help desk requests from October 23 to November 20, 2000, or those with specialized applications. We also looked at who attended recent ITAB meetings.

To recruit for the groups of general users, we selected the 5 departments with the most help desk calls between October 23 and November 20, 2000, and several "low interaction departments" selected to provide a mix of types of operations. ITD provided us names of people from the departments we selected who had called the help desk after October 23, 2000.

We excluded IT and City Auditor's Office employees from all lists and excluded ITAB members and executives from the list of help desk callers. We also made sure not to include a supervisor and subordinate in the same group.

We recruited focus group members through Lotus Notes e-mail messages and if necessary, follow-up phone calls. Each group had at least 8 members confirmed to attend. We sent reminder e-mails to those confirmed on the day of the group. We believe the low turnout for the ITAB/IPOG group resulted from severe weather.

Exhibit 2. Focus Groups

Date	Group	Size
12/11/00	Department Executives	9
12/13/00	ITAB/IPOG Members	5
12/14/00	General User Group #1	9
12/14/00	General User Group #2	8

We facilitated the focus groups using a script developed in conjunction with Chris Tatham, Vice President, ETC Institute. Mr. Tatham

facilitated the first focus group. City Auditor's Office staff facilitated the three subsequent groups.

Focus Group Process

We asked focus group participants to describe how they interact with ITD. We then asked them to describe, in their opinion, what they felt ITD does well and what areas ITD could improve.

With these situations in mind we asked focus group participants to generate as many ideas as possible about expectations of ITD or ideas about what areas of IT could be measured. Participants wrote their ideas on sticky notes, which we worked together to categorize. Participants then rated each of the categories in terms of importance and selected the top three categories in order of importance.

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Management Group. Focus group participants in the management group identified 14 areas that could be used to measure IT performance. Then they ranked the importance of each area on a scale of 4 to 1, with 4 being very important and 1 being not important at all. (See Exhibit 3.)

Exhibit 3. Management Group Performance Categories

Category	4	3	2	1	Total Votes
Responsiveness	8	1	0	0	9
Customer Satisfaction	8	1	0	0	9
Customer Input	6	1	1	0	8
Availability	4	5	0	0	9
Mission	3	3	2	0	8
Needs Assessment	3	4	1	1	9
Flexibility	3	4	1	1	9
Industry Trends	2	3	4	0	9
Cost/Cost Return	2	4	3	0	9
Quality Equipment	1	3	4	0	9
Preventative Maintenance	1	4	4	0	9
Benchmarking	1	5	1	1	8
Documentation	1	5	3	0	9
Homepage	0	2	5	2	9

The management group participants ranked customer satisfaction, responsiveness, availability, and flexibility most often in their top three expectations of IT. (See Exhibit 4.)

Exhibit 4. Three Most Important Expectations – Management Group

Category	1	2	3	Total
Customer Satisfaction	1	2	2	5
Responsiveness	3	1	0	4
Availability	2	1	0	3
Flexibility	0	0	3	3
Customer Input	0	2	0	2
Needs Assessment	1	0	1	2
Industry Trends	0	0	2	2
Preventative Maintenance	0	1	0	1
Mission	0	1	0	1
Cost/Cost Return	0	0	0	0
Documentation	0	0	0	0
Quality Equipment	0	0	0	0
Homepage	0	0	0	0
Benchmarking	0	0	0	0

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Technical Group. Focus group participants in the technical group identified 9 areas that could be used to measure IT performance. Then they ranked the importance of each area on a scale of 4 to 1, with 4 being very important and 1 being not important at all. (See Exhibit 5.)

Exhibit 5. ITAB/IPOG Group Performance Categories

Category	4	3	2	1	Total Votes
Communication	5	0	0	0	5
Mission	4	1	0	0	5
Quality Assurance	2	3	0	0	4
Current Technology	2	2	1	0	5
Responsiveness	2	1	1	0	5
Training	1	4	0	0	5
Human Resource Issues	1	4	0	0	5
Decentralize Expertise	1	3	1	0	5
Budget Issues	1	2	2	0	5

The technical group participants ranked communication, human resource issues, quality assurance, and mission most often in their top three expectations of IT. (See Exhibit 6.)

Exhibit 6. Three Most Important Expectations – Technical Group

Category	1	2	3	Total
Communication	2	2	0	4
Human Resource Issues	1	0	1	2
Quality Assurance	1	0	1	2
Mission	1	0	1	2
Training	0	0	1	1
Responsiveness	0	1	0	1
Budget Issues	0	1	0	1
Decentralize Expertise	0	1	0	1
Current Technology	0	0	1	1

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General User Group #1. Focus group participants in the first general user group identified 12 areas that could be used to measure IT performance. Then they ranked the importance of each area on a scale of 4 to 1, with 4 being very important and 1 being not important at all. (See Exhibit 7.)

Exhibit 7. General User Group #1 Performance Categories

Category	4	3	2	1	Total Votes
Communication	9	0	0	0	9
User Needs	8	1	0	0	9
Responsiveness	7	1	1	0	9
Expertise	6	3	0	0	9
Adaptable	5	4	0	0	9
Role and Responsibility	5	2	2	0	9
Quality Assurance	3	6	0	0	9
Continued Support	3	5	1	0	9
Update Information	3	5	0	0	8
Cost	3	3	3	0	9
Telephone Billing	3	1	3	2	9
Training	2	5	1	1	9

Participants in the first general user group ranked user needs, responsiveness, expertise, and communication most often in their top three expectations of IT. (See Exhibit 8.)

Exhibit 8. Three Most Important Expectations – General User Group #1

Category	1	2	3	Total
User Needs	0	3	4	7
Responsiveness	0	2	3	5
Expertise	4	0	0	4
Communication	2	1	1	4
Adaptable	0	3	0	3
Role and Responsibility	1	1	0	2
Continued Support	0	0	1	1
Telephone Billing	1	0	0	1
Training	0	0	0	0
Quality Assurance	0	0	0	0
Update Information	0	0	0	0
Cost	0	0	0	0

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General User Group #2. Focus group participants in the second general user group identified 8 areas that could be used to measure IT performance. Then they ranked the importance of each area on a scale of 4 to 1, with 4 being very important and 1 being not important at all. (See Exhibit 9.)

Exhibit 9. General User Group #2 Performance Categories

Category	4	3	2	1	Total Votes
User Needs	6	2	0	0	8
Responsiveness	6	2	0	0	8
Communication	6	2	0	0	8
Internal Communication	5	2	1	0	8
Attitude	5	1	2	0	8
Mission/Role	4	2	2	0	8
Training	4	2	2	0	8
Quality Assurance	1	6	1	0	8

Participants in the second general user group ranked responsiveness, user needs, and communication most often in their top three expectations of IT. (See Exhibit 10.)

Exhibit 10. Three Most Important Expectations – General User Group #2

Category	1	2	3	Total
Responsiveness	0	5	1	6
User Needs	3	0	2	5
Communication	1	2	1	4
Mission/Role	2	0	1	3
Attitude	2	0	0	2
Quality Assurance	0	1	1	2
Internal Communication	0	0	1	1
Training	0	0	1	1

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Appendix B

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Appendix C

Director of Information Technology's Response

Interdepartmental Communication

RECEIVED
MAR 16 2001
CITY AUDITOR'S OFFICE

DATE: March 15, 2001

TO: Mark Funkhouser, City Auditor

FROM: Gail M. Roper, Director of Information Technology

SUBJECT: Response to Recommendations on Information Technology Performance Measures

The Partnership to Gain a Value Agenda for Excellence:
Currently the ITD organization provides technology operations with fairly traditional IT measures. The results of the Audit Report, the Competitive Information Technology Strategy and the HDR Study identify potential enhancements to current value measures. The Competitive Information Technology Strategy defines a readiness ranking of 2.4 out of 4.0 as the departments ability to measure effectiveness. The attached recommended performance measures provide significant efficiencies and leverage the current technology investments for the City. The movement of IT from Best Actions to Best Practices can be achieved through the implementation of IT value measurements. Leveraging these value initiatives focus on business value goals and priorities for managing IT. I am aware that the City must be effective in value-justifying the investment in the technology infrastructure.

The Information Technology Department supports the adoption of the performance measures identified in the Audit Report. Information Technology declined the submittal of performance measures early this year for the next year's budget as an opportunity to review existing measures and gain feedback from both the Audit Department's study, the results of the Competitive Information Technology Strategy, and HDR's Analysis.

How the Department's Gain:
This adoption of performance value measurement will allow every city department greater efficiency, cost effectiveness, increased constituent electronic interactions and increase constituent satisfaction. The transition plan consists of a three-tiered chronological process. The initial 12-16 month phase continues ITD's traditional role while defining the value agenda. This agenda will launch the City into an e-enabling position over the next 18-36 months.

As information technology becomes a critical enabler for emerging policy issues; issues such as charging for data, privacy, use of the website and providing solutions for the digital divide, these issues become critical.

The data gathered from these studies resulted in the department establishing a clearer understanding of the departmental customer's business needs, City Manager priorities and Mayor/Council initiatives. The Competitive Information Technology Strategy provided insight on Best Practice areas from other municipalities and a gap analysis was done to identify goals for the Department. This comprehensive approach to establishing long and short-term goals to focus the department on efficiency is a direct result of the adoption of these measures.

The development of meaningful metrics provides the IT department with clear measurement to apply to the organization as we transition to Operational Excellence. The overall objective is to improve government functions and enhance constituent services.

I thank the Audit Department for their support and cooperation in this process. This process has been a significant advancement for the Information Technology Department that would not have happened with such depth and swiftness if left to the existing department staff.

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